

NANOCLUSTERED MAGNETIC MATERIALS FOR HIGH MOMENT
WRITE POLE APPLICATIONS

ABSTRACT

5 The present invention includes magnetic write elements with
portions formed a nanophase high magnetic moment material to enable further
increases in areal density in magnetic recording. The nanophase deposited high
magnetic moment material comprises coated nanoclusters and nanolaminated
cluster films that are deposited to form nanophase high magnetic moment
material portions of a write pole and SUL layer in perpendicular recording
10 media. The nanophase write poles exhibit high magnetic moments and are
generally compatible with conventional writer head fabrication techniques.

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